

GROUND WATER QUALITY PROTECTION

systems for waste discharges and other surface activities, ground water quality standards, an underground injection control program, a statewide ground water quality monitoring program, various public awareness and involvement programs, and research programs on the behavior and fate of specific organic contaminants in ground water systems.

The ground water classification system consists of four classifications ranging from sole-source drinking water supplies in which essentially no degradation is allowed to confined nonpotable saline aquifers in which degradation activities such as underground injection of waste effluents can be permitted. The state has been aggressive in setting ground water standards for specific compounds that include the normal priority pollutants as well as additional organic compounds for which EPA has not yet set standards. In addition, the state regulations allow state officials to set standards on a case-by-case basis if needed for any compound. The state ground water quality monitoring network is aimed at assuring high-quality drinking water, general compliance to state standards and regulations, monitoring of the condition of known contaminated areas, and early detection of additional problems in ground water quality.

One of the unique aspects of the Florida approach to ground water protection is the special effort to protect the zones of influence around public supply wells. This system is based on the time that it takes for a contaminant to travel from its source to the well. The shorter the time of travel in ground water toward the production well, the less protected is that area. This is based on land use controls in which certain activities and facilities that may be sources of contamination, such as underground storage tanks or landfills, and other activities might be prohibited from designated zones near the production well.

In addition to state and district regulations, several counties and communities or other jurisdictions have developed more specific and restrictive ground water protection regulations. Dade County in southeast Florida represents a good example of such a jurisdiction. Because of its high population and dependence on the highly vulnerable Biscayne aquifer, Dade County has established an aggressive approach to strict protective measures. This is based largely on land use controls but also on a number of other mechanisms. Dade County, for instance, was the pioneer in developing the concept of protecting the zone of influence around production wells from activities that could be potentially contaminating. These measures are based largely on zoning and land use restrictions that can prohibit underground storage tanks and other potentially contaminating activities near wells. Dade County works cooperatively with two other counties in a very strong regional program entitled "The Biscayne Aquifer Project," which was established to protect that vital and important aquifer. Dade County